

Electrical Safety

Audience: All persons who work with machinery and equipment either on or off the job.

Training Time: Average - 39 to 78 minutes [NOTE](#)

Delivery Formats: Web, CD-ROM, LAN, WAN, [Web-Connected CD](#)

Product Code: smaxelec

Interactive Producer: Mastery Technologies, Inc.

Original Content Producer: Samax Productions, Ltd.

Language(s): English, Spanish, French Canadian

Overview

Electricity is all around us. It lights up our homes, powers much of the machinery and equipment that we use, and runs many of our tools. We are so used to it, most employees take it for granted. Yet electricity can also be dangerous. Employees need to know how electricity works, and what they should do to protect themselves from its hazards. 'Electrical Safety' provides the information employees need to work safely around electricity. The Course also satisfies the OSHA training requirements under 29 CFR Part 1910.331 for 'non-qualified' employees.



correctly. Mastery's exclusive Follow-up Review, standard in all Mastery Advantage courses,



provides time-delayed reinforcement and review of the learner's newly acquired knowledge. The Follow-up Review enhances the transfer of newly acquired knowledge to the learner's long-term memory.

The Learner navigates through the course and its resources using the standard Mastery Control Bar. Course resources include a fully narrated glossary of terms. Each term is pronounced and its definition read aloud to the learner. A topical index provides a complete map to the instructional material. The learner can ask for all course information on any topic at any time during the lesson presentations. The learner can use the topical index as a reference source even after completing the course. Closed Captioning is included. A complete transcript of all audio and video files is also provided with this course. Use the transcript file in conjunction with MODIFY to simplify customizations.

Topics

The course presents interactive instruction covering the following topical areas:

How Electricity Works

- Voltage
- Amps
- Electrical circuit

Fuses and Circuit Breakers

Grounding and GFCIs

Safe Work Practices

Working With Electrical Equipment

- Lockout Tagout procedures
- Proper lighting
- Remove conductive articles
- Cleaning and maintenance
- Personal Protective Equipment

Dangerous Work Environments Dangerous Work Environments

- Working in confined spaces
- Working in confined spaces
- Working around overhead power lines
- Ladders



- Working in wet environments
- Working around flammables

Electrical Emergencies

- First aid
- Electrical fires

Performance Objectives

This course will measure mastery on each of the following performance objectives. Upon completion, workers will be able to...

Describe how electricity works.

- Distinguish between volts and amps.
- Describe how the flow of electricity works.

Describe the function of circuit breakers and fuses.

- Describe the function of a fuse.
- Describe the function of a circuit breaker.
- State how fuses and circuit breakers are rated.

Describe function of ground wires and GFCIs.

- Define GFCI.
- Define ground wire.
- Describe the function of a ground wire.
- Define a grounded outlet.

Use safe work practices when working with electricity.

- State the dangers most commonly associated with electricity.
- Identify unsafe work practices that should be avoided.
- Describe the function of double-insulated tools.



Work safely with electrical equipment.

- State the purpose of Lockout or Tagout procedures.
- Describe safe work practices when working with electrical equipment.

Identify dangerous work environments.

- Describe precautions you can take to protect yourself when working in a dangerous work environment.

Describe what to do in an electrical emergency.

- List proper steps to take during an emergency.
- Identify proper fire extinguisher to use during an electrical fire.
- Describe how to treat an electrical burn.